

Remarks

Applicants respectfully request reconsideration of the above-identified application. Claims 21, 23-24, 26-28, 31, 34-39, 48-51, and 53-55 remain in this Application.

Claims 21, 23, 28, 31, 34-36, 51, and 55 have been amended. Independent claim 21 has been amended to incorporate the subject matter of dependent claims 22 and 32, which have been canceled. Dependent claim 25 has been canceled, its subject matter now covered by dependent claim 24. Previously dependent claim 28 has been amended to place it in independent form incorporating the subject matter of previous claims 21-22 and 29-30, with dependent claims 22 and 29-30 now being canceled. Previously dependent claim 34 has been amended to place it in independent form incorporating the subject matter of previous claims 21-22 and 33, with dependent claims 22 and 33 now being canceled. Previously dependent claim 36 has been amended to place it in independent form. Independent claim 51 has been amended to incorporate the subject matter of dependent claim 52, which has been canceled. Dependent claim 55 has been amended as discussed below.

Claims 1-20, 40-47, and 56-57 have been canceled as directed to non-elected subject matter. Claims 22, 25, 29-30, 32-33, and 52 have also been canceled, as discussed above.

I. Rejections based on art.

Previously presented claims 21-23, 35-38, and 48-49 were rejected under 35 U.S.C. §102(b) as anticipated by U.S. Patent 5,088,047 to Bynum. Previously presented claims 24-27 and 50 were rejected under 35 U.S.C. §103(a) as obvious in view of Bynum. Previously presented claims 28-31, 33-34, 39, and 51-54 were rejected under 35 U.S.C. §103(a) as obvious in view of Bynum combined with U.S. Patent 5,024,862 to Frank. Previously presented claim 32 was rejected under 35 U.S.C. §103(a) as obvious in view of Bynum combined with U.S. Patent 4,620,466 to Jumel. Previously presented claim 55 was rejected under 35 U.S.C. §103(a) as obvious in view of Bynum combined with Frank and Jumel.

Applicants respectfully traverse these rejections as conceivably applied to the currently presented claims.

Independent claim 21 has been amended to incorporate the subject matter of dependent claims 22 and 32, which have been canceled. Thus, independent claim 21 now recites that “one or more fluid jet cutting heads . . . [are] adapted to cut the sheet stock supported by the conveyor into the discrete sheets.” Bynum fails to teach or suggest this feature. The previous Office action at page 11 acknowledges that Bynum fails to teach jet cutting heads, and cites Jumel as teaching cutting using high-pressure water jet.

The previous Office action points to cutter 99 of Figure 3 of Bynum to establish a cutting head. However, the Bynum cutter is oriented *under* the conveyor to point and cut upward. This upward orientation of the Bynum cutter is important, so that the cutting of the resin sheet 92 may be made in conjunction with the stacking of the cut lamina under the conveyor and the cut lamina may adhere to the upward moving sandwich stack 60. (Col. 11, lines 30-45.)

To the direct contrary of Bynum, the Jumel water jet is oriented *over* the conveyor to cut downward. As Jumel explains, “cutting nozzle 22 [is] arranged vertically *above* strip 30 and a jet recovery system 76 [is] arranged *below* the strip and facing nozzle 22.” (Col. 5, lines 11-13, emphasis added.) The Jumel arrangement of the water jet pointing downward provides for gravity to drive the recovery of the jetted water, allowing “the water vapour formed by the breaking up of the jet 60 to flow *by gravity* towards a pipe 100.” (Column 5, lines 60-61; Fig. 3, emphasis added.)

One of skill would not be led to modify the upward cutting Bynum machine to use a water jet cutter, because the upward orientation would be incorrect for the Jumel water jet to operate successfully. A *prima facie* case of obviousness requires that the prior art provide a reasonable expectation that the proposed modification will succeed. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991) (cited by MPEP §2142). In the present case, the proposed combined prior art lacks any reasonable expectation of success; therefore, a *prima facie* case of obviousness has not been established. At the least, the motivation to combine the references to

form a *prima facie* obviousness case is lacking because the proposed combination would render the prior art unsatisfactory for its intended use. MPEP §2143.01.

Dependent claims 23-24, 26-27, 31, 35, 37-39 ultimately depend from independent claim 21 and are therefore further patentable over the proposed combination of Bynum and Jumel.

Previously dependent claim 28 has been amended to place it in independent form incorporating the subject matter of previous claims 21-22 and 29-30, with dependent claims 22 and 29-30 now being canceled. Independent claim 28 now recites “a vacuum head adapted to lift the inner scrap cutouts from the conveyor, wherein the vacuum head is *downstream* from the first set of one or more cutting heads and *upstream* from the second set of one or more cutting heads” (emphasis added). Bynum fails to teach or suggest this feature.

The previous Office action at page 8 in discussing claim 30 acknowledges that Bynum fails to disclose this feature, and at page 10 supplements this shortcoming with Frank. However, Frank fails to teach or suggest this feature. The Office action states that Frank teaches that “the vacuum head is downstream from the first set of one or more cutting heads and from the second set of one or more cutting heads.” (Page 10, lines 4-5.) Even if this is true, it does not teach the claim 28 feature at issue – namely the claim 28 recitation that the vacuum head is downstream from the first set and *upstream* from the second set. The cited Office action statement merely points out that both sets of cutting heads are *downstream* from the first and second sets. This does not establish that Frank teaches the recited feature.

Accordingly, Applicants respectfully submit that a *prima facie* case of obviousness has not been established to shift the burden of rebuttal to the Applicant. One of the requirements of a *prima facie* case of obviousness is that the applied prior art reference must teach or suggest *all* of the claim limitations. MPEP §706.02(j). A claimed invention is not obvious in view of a combination of references that does not teach or suggest all of the claim recitations. MPEP §2143.03.

Previously dependent claim 34 has been amended to place it in independent form incorporating the subject matter of previous claims 21-22 and 33, and to recite “across the conveyor” (support provided for example at page 8, line 11). Dependent claims 22 and 33 are now canceled. As amended, independent claim 34 recites that “the plurality of cutting heads are adapted to cut *multiple sheets of the same shape oriented across the conveyor perpendicular* to the direction of travel of the conveyor” (emphasis added). Bynum fails to teach or suggest this feature. The previous Office action at page 8 acknowledges that Bynum fails to disclose this feature, and at page 10 cites Frank to supplement this shortcoming.

However, Applicant respectfully submits that Frank fails to teach or suggest “cutting heads are adapted to cut *multiple sheets of the same shape oriented across the conveyor perpendicular* to the direction of travel of the conveyor” as recited in claim 34. Rather, Frank cuts a single shape in a single ply at a time on the conveyor. (Column 4, line 3-37.) In fact, to cut more shapes at a time, Frank teaches expansion to an additional conveyor. (Figure 6.) Because the proposed combination of Bynum and Frank fails to teach or suggest all of the claim limitations, a *prima facie* case of obviousness has not been established.

Previously dependent claim 36 has been amended to place it in independent form. Amended claim 36 recites that “the platform comprises a second conveyor.” The previous Office action at page 3, last sentence cites Bynum Figure 3 as teaching that feature. However, although Bynum teaches a first conveyor 86, Bynum fails to teach or suggest a second conveyor as part of the platform 66. Accordingly, Bynum fails to teach or suggest the recited feature of claim 36.

Independent claim 48 was rejected as anticipated by Bynum. Claim 48 recites “one or more cutting heads moveable transversely and longitudinally relative to the conveyor to define a cutting area *over* the conveyor, and adapted to cut the sheet stock in the cutting area *over* the conveyor while the sheet stock is supported by the conveyor.” Bynum fails to teach or suggest this feature. To the direct contrary, Bynum teaches that the cutter 99 is *under* the conveyor 86 (Figure 3).

Dependent claims 49 and 50 depend from independent claim 48 and include additional recitations, and therefore are further patentable over Bynum.

Independent claim 51 has been amended to incorporate the subject matter of dependent claim 52, which has been canceled. As amended, claim 51 recites that “the plurality of cutting heads are adapted to cut multiple sheets of the same shape oriented across the conveyor belt perpendicular to the direction of travel of the conveyor belt.” Bynum fails to teach or suggest this feature. The previous Office action at page 13 acknowledges that Bynum fails to disclose this feature, and at the bottom of page 13 cites Frank to supplement this shortcoming.

However, Applicant respectfully submits that Frank fails to teach or suggest “cutting heads are adapted to cut *multiple sheets of the same shape oriented across the conveyor belt perpendicular* to the direction of travel of the conveyor belt” as recited in claim 51. Rather, Frank cuts a single shape in a single ply at a time on the conveyor. (Column 4, line 3-37.) In fact, to cut more shapes at a time, Frank teaches expansion to an additional conveyor. (Figure 6.) Because the proposed combination of Bynum and Frank fails to teach or suggest all of the claim limitations, a *prima facie* case of obviousness has not been established.

Dependent claims 53-55 depend from independent claim 51 and include additional recitations, and therefore are further patentable over the proposed combination of Bynum and Frank. Dependent claim 55 was further rejected on the basis of Bynum combined with Frank and Jumel. Claim 55 has been amended to recite “fluid” rather than “water” to assure that the recited fluid jet cutting head is not limited to water as the cutting fluid. Support for this amendment may be found, for example, at page 7, lines 30-34. Jumel fails to supplement the shortcomings of the combination of Bynum and Frank as discussed above with respect to independent claim 51.

II. Conclusion

In view of the amendments to the claims and these remarks, it is respectfully submitted that the present application is in condition for allowance. A notice to that effect is

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earnestly and respectfully requested.

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